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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/736,827	12/14/2000	Gregory Donald Troxel	00-4044	8663

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EXAMINER

JEAN, FRANTZ B

ART UNIT	PAPER NUMBER
2151	

DATE MAILED: 09/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/736,827

Applicant(s)

TROXEL ET AL.

Examiner

Frantz B. Jean

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 23 June 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☐ All b) ☐ Some \* c) ☐ None of:

- ☐ Certified copies of the priority documents have been received.
- ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
- ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>6/23, 6/24, 7/12/04</u> . | 6) <input type="checkbox"/> Other: _____  |

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This office action is in response to the amendment filed on 6/23/04. Claims 1-21 are still pending in this application.

**Information Disclosure Statement**

The information disclosure statement (IDS) submitted on 6/23/04, 6/24/04 and 7/12/04 was filed after the mailing date of the of the first office action on the merit. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

The drawings correction filed 6/23/04 has been entered in the file.

**Claim Rejections - 35 USC § 102**

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5, 8, 12-16 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Narten et al. ("Neighbor Discovery for IP Version 6 (IM)", RFC 2461, IETF, pp. 1-93 (as printed), December 1998).

Narten teaches the invention as claimed including a protocol for nodes on the same link to discover each other's presence (see abstract).

As to claim 1, Narten teaches a method for use in delivering network messages, the method comprising:

attempting to identify a router that a first host can communicate with (Sec. 4.1, par 1; Narten discloses that hosts solicit routers to advertise their presence; Sec 4.2, par. 1; Narten discloses that routers respond to the solicitations); and if the attempt fails, attempting to identify at least one host that the first host can communicate with, the at least one host having a network layer address network prefix that differs from the network layer address network prefix of the first host (Sec. 1, par. 1; Sec. 6, par. 2; Narten discloses that when a host cannot connect to a router, it seeks an alternative using a list of the set of network prefixes that reside on the link).

As to claim 2, Narten teaches the method of claim 1, wherein attempting to identify the router comprises waiting for a router availability message (Sec. 4.1, par, 1; Narten discloses that hosts send router solicitations and wait for the responses).

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As to claim 3, Narten teaches the method of claim 2, wherein waiting for the router availability message comprises waiting for a message addressed to a multicast address (Sec 4.2, par. 1, par. 3 (see Destination Address); Narten discloses that the destination address for a router advertisement (availability message) may be a multicast address).

As to claim 4, Narten teaches the method of claim 1, wherein attempting to identify the router comprises sending a message quer32ng for available routers (Sec. 4.1, par 1; Narten discloses that hosts solicit routers to advertise their presence).

As to claim 5, Narten teaches the method of claim 1, further comprising sending a message to the second host (Sec. 4.3, par. 1; Narten discloses that a node (host) sends requests to neighboring nodes).

As to claim 8, Narten teaches the method of claim 1, further comprising: determining an Internet Protocol address of the second host (Sec. 4.4, par. 1, 8 (see Source Address); Narten discloses that the node (second host) sends its IP address when responding to a request); and modifying a forwarding table to include an entry for the second host (Sec. 5.1, par. 2 (see Neighbor Cache); Narten discloses that a host maintains data about other hosts it has communicated with recently).

Claims 12-16 and 19 represent computer program claims that correspond to method claims 1-5 and 8, respectively. They do not teach or define any new limitations above claims 1-5 and 8, and therefore are rejected for similar reasons.

#### Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action;

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 6-7, 9-11, 17-18 and 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Narten et al. in view of Perkins (Perkins, C., ed.; "IP Mobility Support", RFC 2002, IETF, pp. 1-79 (as printed), October 1996).

As to claim 6, Narten teaches the invention substantially as claimed (see the rejection of claim 1 above). Narten fails to teach the limitation of a router providing a first set of services. However, Perkins teaches protocol enhancements that allow transparent routing of EP datagrams to mobile nodes on the internet (see abstract). Perkins teaches the limitation of a router providing a first set of services (Sec. 1.5, par. 3 (see Foreign Agent); Perkins discloses that a router may provide services such as detunneling of messages addressed to a mobile node, or routing of messages sent by a mobile node). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Narten in view of Perkins so as to have

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routers provide different services. One would be motivated to do so to provide optimized network layer routing.

As to claim 7, Narten teaches the invention substantially as claimed (see the rejection of claim 1 above).

Narten fails to teach the limitation of a router providing a second set of services.

However, Perkins teaches the limitation of a router providing a second set of services (Sec. 1.5; par. 3 (see Foreign Agent); Perkins discloses that a router may provide services such as detunneling of messages addressed to a mobile node, or routing of messages sent by a mobile node).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Narten in view of Perkins so as to have routers provide different services. One would be motivated to do so to provide optimized network layer routing.

As to claim 9, Narten teaches the invention substantially as claimed (see the rejection of claim 1 above).

Narten fails to teach the limitation of the router comprising a foreign agent. However, Perkins teaches the limitation of a router comprising a foreign agent (Sec. 1.5, par. 3 (see Foreign Agent); Perkins discloses that a foreign agent is a router on a mobile node's visited network).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Narten in view of Perkins so, as to have an agent that serves the mobile node. One would be motivated to do so to provide the mobile node with specific services such as detunneling of messages.

As to claim 10, Narten teaches the invention substantially as claimed (see the rejection of claim 1 above).

Narten fails to teach the limitation of the first host comprising a wireless host.

However, Perkins teaches of a host comprising a wireless host (Sec. 1.2; Sec. 1.5; par. 1; Perkins discloses that a mobile node may be a wireless host). It would have been obvious to one; of ordinary skill in the art at the time of the invention to modify Narten in view of Perkins so as to allow a wireless host to communicate with other hosts. One would be motivated to do so to satisfy the increasing demand for wireless communication.

As to claim 11, Narten teaches the invention substantially as claimed (see the rejection of claim 10 above).

Narten fails to teach the limitation of the at least one host comprising at least one wireless host.

However, Perkins teaches of a host comprising a wireless host (Sec. 1.2; Sec. 1.5; par. 1; Perkins discloses that a mobile node may be a wireless host). It would have been obvious to one: of ordinary skill in the art at the time of the invention to modify Narten in view of Perkins so as to allow wireless hosts to communicate with each other. One would be motivated to do so to satisfy the increasing demand for wireless communication.

Claims 17-18 and 20-21 represent computer program claims that correspond to method claims 6-7 and 9-10, respectively. They do not teach or define any new limitations above claims 6-7 and 9-10, and therefore are rejected for similar reasons.

### ***Response to Arguments***

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Applicant's arguments filed 6/23/04 have been fully considered but they are not persuasive.

Applicants argued that Narten alone or in combination with Perkins fails to teach a) attempting to identify a host if attempt to identify a router fails, b) determining an IP address of the at least one other host.

In response, Examiner respectfully submits that with respect to item a), Narten discloses when a router or a path to a router fails a host actively searches for functioning alternates. In other words, the functioning alternates could be a host to host communication or another functioning router (see page 3 (Introduction section), section 1, 1st paragraph). Furthermore, In paragraph 2 of section 6 (see Narten), Narten provides alternative wherein the system can communicate without a router; Narten uses a prefix discovery that allows hosts to learn the ranges of IP addresses that reside on-link and can be reached directly without going through a router. Therefore, it is concluded that in the event of a router failure Narten can use host-to-host communication as an alternative.

Regarding to item b), Narten discloses determining an Internet Protocol address of the second (other) host (Sec. 4.4, par. 1, 8 (see Source Address); Narten discloses that the node (second host) sends its IP address when responding to a request); and modifying a forwarding table to include an entry for the second host (Sec. 5.1, par. 2 (see Neighbor Cache); Narten discloses that a host maintains data about other hosts it has communicated with recently). Therefore, contrarily to applicants assumption, Narten IP address is not already established or given, it is determined. Applicants have presented no proof that supports the determination that Narten's IP address is given. Accordingly, the rejection is maintained.

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

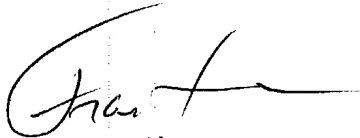
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frantz B. Jean whose telephone number is 703 305 3970. The examiner can normally be reached on 8:30-6:00 M-f.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Zarni Maung can be reached on 703 308-6687. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Frantz Jean



FRANTZ B. JEAN  
PRIMARY EXAMINER